

# Transforming Learning with Technology

## A Portfolio by Shannon Ward

Created in EdL 325 Instructional Technology  
Fall 2009

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As a teacher it is critical for me to demonstrate mastery of teacher standards.

- [ISTE-NETS Teacher Standards](#)

It is also critical for me to plan instruction that allows my students to master their standards.

- [ISTE-NETS Student Standards](#)

As a teacher in Wisconsin I must also continually improve on the 10 Wisconsin Teacher Standards

- [10 WI Teacher Standards](#)

And, I must align my work to the Framework for 21<sup>st</sup> Century learning.

- [21<sup>st</sup> Century Framework](#)

Samples of  
work  
representing  
application of  
standards  
seen at:

[http://  
shannonward.  
wikispaces.co  
m/](http://shannonward.wikispaces.com/)

# ISTE-NETS Teacher Standards

[Start](#)

[ISTE Student Standards](#)

[10 WI Teacher Standards](#)

[21<sup>st</sup> Century Framework](#)

[ISTE-NETS Teacher Standards](#)



[http://www.iste.org/content/navigationmenu/nets/forteachers/2008standards/nets\\_for\\_teachers\\_2008.htm](http://www.iste.org/content/navigationmenu/nets/forteachers/2008standards/nets_for_teachers_2008.htm)

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# ISTE-NETS Student Standards

[10 WI Teacher Standards](#)

[21<sup>st</sup> Century Framework](#)

[ISTE-NETS Teacher Standards](#)

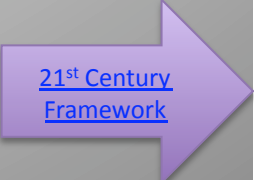
[ISTE Student Standards](#)






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# 10 Wisconsin Teacher Standards

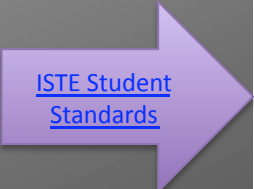


[21<sup>st</sup> Century Framework](#)


1. Teachers know the subjects they are teaching.
2. Teachers know how children grow.
3. Teachers understand that children learn differently.
4. Teachers know how to teach.  
*Example: Creating a Rubistar document*
5. Teachers know how to manage a classroom.
6. Teachers communicate well.  
*Example: La Comida Kidspiration MindMap*
7. Teachers are able to plan different kinds of lessons.
8. Teachers know how to test for student progress.
9. Teachers are able to evaluate themselves.
10. Teachers are connected with other teachers and the community.



[ISTE-NETS Teacher Standards](#)



[ISTE Student Standards](#)



[10 WI Teacher Standards](#)

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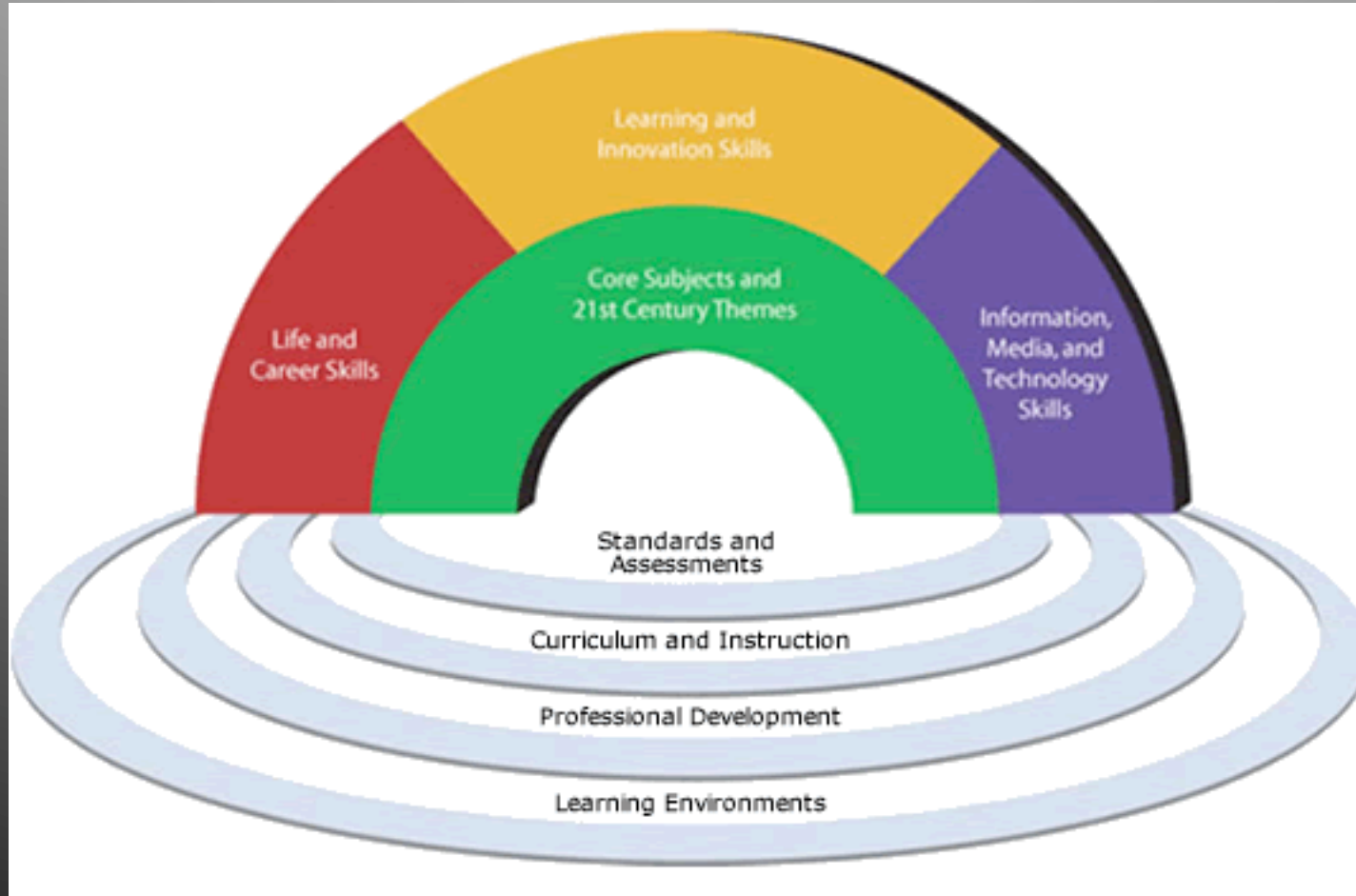
# 21<sup>st</sup> Century Framework

[ISTE-NETS  
Teacher  
Standards](#)

[ISTE Student  
Standards](#)

[10 WI Teacher  
Standards](#)

[21<sup>st</sup> Century  
Framework](#)



[http://www.21stcenturyskills.org/downloads/P21\\_Report.pdf](http://www.21stcenturyskills.org/downloads/P21_Report.pdf)

# Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.


Teachers:

- a. promote, support, and model creative and innovative thinking and inventiveness.
- b. engage students in exploring real-world issues and solving authentic problems using digital tools and resources.
- c. promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes.
- d. model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments.



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**Example: La Ciudad de Mexico WebQuest**



[ISTE-NETS](#)  
[Teacher](#)  
[Standards](#)



# Design and Develop Digital-Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessment incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS•S.


Teachers:

- a. design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity.
- b. develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress.
- c. customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources.
- d. provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching.



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**Example: Mi Viaje Movie**



[ISTE-NETS  
Teacher  
Standards](#)

# Model Digital-Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.


Teachers:

- a. demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations.
- b. collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation.
- c. communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats.
- d. model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning.



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**Example: 3-Fold Brochure on Design Principles**



[ISTE-NETS  
Teacher  
Standards](#)



# Promote and Model Digital Citizenship and Responsibility


Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices. Teachers:

- a. advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources.
- b. address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources.
- c. promote and model digital etiquette and responsible social interactions related to the use of technology and information.
- d. develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital-age communication and collaboration tools.



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**Example: Personal Wikispace**



[ISTE-NETS  
Teacher  
Standards](#)

# Engage in Professional Growth and Leadership


Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. Teachers:

- a. participate in local and global learning communities to explore creative applications of technology to improve student learning.
- b. exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others.
- c. evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning.
- d. contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community.



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**Example: Family Newsletter**



[ISTE-NETS  
Teacher  
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# Creativity and Innovation

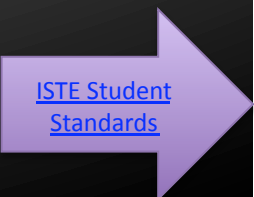
Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.
- c. use models and simulations to explore complex systems and issues.
- d. identify trends and forecast possibilities.



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**Example: 3-Fold Brochure on Design Principles**



[ISTE Student Standards](#)

# Communication and Collaboration

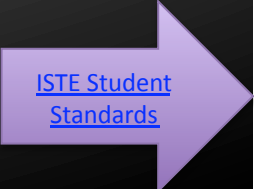
Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- c. develop cultural understanding and global awareness by engaging with learners of other cultures.
- d. contribute to project teams to produce original works or solve problems.



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**Example: Personal Wikispace**



[ISTE Student Standards](#)

# Research and Information Fluency

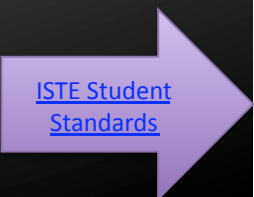
Students apply digital tools to gather, evaluate, and use information. Students:

- a. plan strategies to guide inquiry.
- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- d. process data and report results.



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**Example: La Ciudad de Mexico WebQuest**



[ISTE Student Standards](#)

# Critical Thinking, Problem Solving, and Decision Making

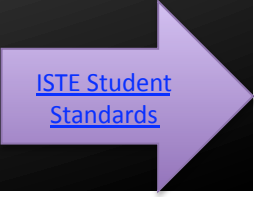
Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

- a. identify and define authentic problems and significant questions for investigation.
- b. plan and manage activities to develop a solution or complete a project.
- c. collect and analyze data to identify solutions and/or make informed decisions.
- d. use multiple processes and diverse perspectives to explore alternative solutions.



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**Example: Google Map Lesson**



[ISTE Student Standards](#)



# Digital Citizenship

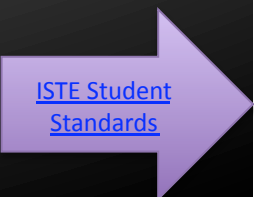
Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a. advocate and practice safe, legal, and responsible use of information and technology.
- b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. demonstrate personal responsibility for lifelong learning.
- d. exhibit leadership for digital citizenship.



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**Example: Personal Wikispace**



[ISTE Student Standards](#)

# Technology Operations and Concepts

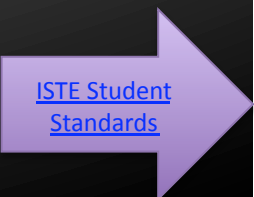
Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.
- c. troubleshoot systems and applications.
- d. transfer current knowledge to learning of new technologies.



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**Example: Creating a Rubric Using RubiStar**



[ISTE Student Standards](#)

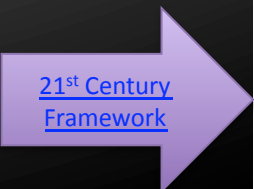
# Emphasize core subjects

- NCLB: English, reading/language arts, mathematics, science, foreign languages, civics, government, economics, arts, history, and geography



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**Example: La Ciudad de Mexico WebQuest**



[21<sup>st</sup> Century  
Framework](#)

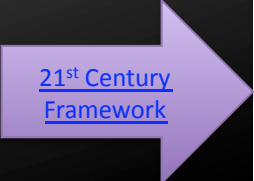
# Emphasize learning skills

- Information and communication skills
  - Information and media literacy skills
  - Communication skills (oral, written, multimedia)
- Thinking and Problem-solving skills
  - Critical thinking and systems thinking
  - Problem identification, formulation and solution
  - Creativity and intellectual curiosity
- Interpersonal and self-directional skills
  - Interpersonal and collaborative skills
  - Self-direction
  - Accountability and adaptability
  - Social responsibility



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**Example: 3-Fold Brochure on Design Principles**



[21<sup>st</sup> Century  
Framework](#)

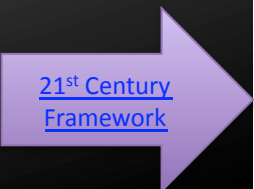
# Use 21<sup>st</sup> Century tools to develop learning skills

- Information and communication technologies such as computers, networking and other technologies
- Audio, video, and other media and multimedia tools
- I.e. Spreadsheets, word processing, email, groupware, presentation, web development, Internet search tools, etc



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**Example: Mi Viaje Movie**



[21<sup>st</sup> Century Framework](#)

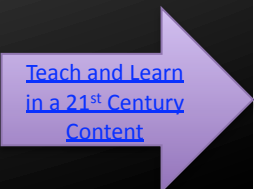
# Teach and learn in a 21<sup>st</sup> Century context

- Make content relevant to students' lives
- Bring the world into the classroom
- Take students out into the world
- Create opportunities for students to interact with each other, with teachers and with other knowledgeable adults in authentic learning experiences



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**Example: Google Map Lesson**



[Teach and Learn  
in a 21<sup>st</sup> Century  
Content](#)



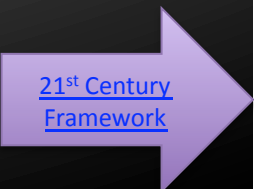
# Teach and learn in a 21<sup>st</sup> Century content

- Global awareness
  - Use 21<sup>st</sup> century skills to understand and address global issues
  - Learn from and work collaboratively with individuals representing diverse cultures, religions and lifestyles in a spirit of mutual respect and open dialogue in personal, work and community contexts
  - Promote the study of non-English language as a tool for understanding other nations and cultures
- Financial, economic and business literacy
  - Know how to make appropriate personal economic choices
  - Understand the role of the economy and the role of business in the economy
  - Apply appropriate 21<sup>st</sup> century skills to function as a productive contributor within an organizational setting
  - Integrate oneself within and adapt continually to our nation's evolving economic and business environment
- Civic literacy
  - Be an informed citizen to participate effectively in government
  - Exercise the rights and obligations of citizenship at local, state, national and global levels
  - Understand the local and global implications of civic decisions
  - Apply 21 century skills to make intelligent choices as a citizen



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**Example: La Ciudad de Mexico WebQuest**



[21<sup>st</sup> Century Framework](#)

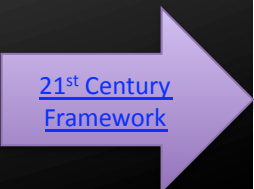
# Use 21<sup>st</sup> Century assessments that measure 21<sup>st</sup> Century skills

- Use standardized tests to measure both core subjects and 21<sup>st</sup> century skills
- Balance standardized tests with classroom assessments to measure the full range of student skills in a timely way.
- Strengthen classroom assessments and integrate them with the instructional process to reinforce learning, provide immediate feedback and help students learn core subjects and 21<sup>st</sup> century skills.



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Example: Rubric of La Conquista



[21<sup>st</sup> Century Framework](#)